

**DETAILED ACTION**

1. Upon further consideration, the Finality of the Office Action dated 02 February 2011 is hereby withdrawn and action upon all claims now follows.

***Information Disclosure Statement***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Drawings***

3. The drawings are objected to because in Fig. 2, it appears "14" should be -15-- instead.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet.

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The disclosure is objected to because of the following informalities:

On p. 5, line 14, Applicant is respectfully requested to verify whether the "=" symbols in the formula "10,000 = b =12,500" are correct here.

On p. 7, last line, it appears "larger" should read --large--.

***Claim Objections***

5. Claim 7 is objected to because of the following informalities:

It is not exactly clear what the distinction is between the "tufted filaments" (claim 7, line 2) and the "tufted portion" (claim 1, line 2 and claim 7, line 3). For example, Fig. 2 shows the lead line for tufted portion 31 being drawn to only a single tuft as opposed to all the tufts themselves. Thus, if a "tufted portion" 31 is merely a single tuft, then the recitation of "filaments" or "tufted filaments" and "tufted portion" would appear to be

redundant. Any double inclusion or apparent double inclusion of elements should be avoided for a clear understanding of claim scope.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Chan et al. 2003/0084528 (hereinafter Chan).

As for claim 1, Chan discloses an electric toothbrush in Figs. 1-3, for example, in which brushing is enabled by back-and-forth linear movement of “a” tufted portion 38 (i.e., considering just the second bristle holder 38 itself) in only a longitudinal direction of a replaceable brush (paragraph [0039]), wherein the stroke or distance (mm) of movement of the tufted portion 38 is set in the range of 0.5 – 3 mm (paragraph [0057]), the cycle or frequency (times) of back-and-forth motion of the tufted portion 38 per minute is set in the range of 2000 - 11,000 (paragraph [0056]), and it would thus appear that the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute would be in the range of 5000 –

7000. Given such a teaching by Chan (e.g., the **wide** range of "2000 - 11,000"), even assuming arguendo that the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute were not in the range of 5000 – 7000, through known optimization techniques, it would have been obvious to one of ordinary skill in the art to have simply modified the product of the distance (mm) of movement of the tufted portion and the frequency (times) of back-and-forth motion per minute to be in the range of 5000 – 7000 in order to optimally or more effectively remove plaque.

As for claim 8, a DC electric motor is used as means for moving said tufted portion 38 (paragraph [0038]).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of Gleason et al. 6,496,999 (hereinafter Gleason).

Chan already discloses filaments being combined to form tufted filaments and the tufted filaments are arranged to form the tufted portion (Figs. 1-3). Chan discloses all of the recited subject matter as set forth above with the exception of filaments in which tip portions of at least 30% or more of all the filaments in the tufted filaments are

split into a plurality of portions. The patent to Gleason teaches in Figs. 6 and 10, for example, the concept of filaments in a toothbrush in which tip portions 54 of filaments in the tufted filaments are split into a plurality of portions. It would have been obvious to one of ordinary skill in the art to have modified Chan such that tip portions of "at least 30% or more of all the filaments" (which can be all the bristles) in the tufted filaments are split into a plurality of portions as taught by Gleason for the purpose of improving plaque removal (col. 4, lines 31-53 and col. 5, lines 12-25).

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Porper is pertinent to a reciprocating toothbrush arrangement.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randall Chin whose telephone number is (571)272-1270. The examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Randall Chin/  
Primary Examiner, Art Unit 3723